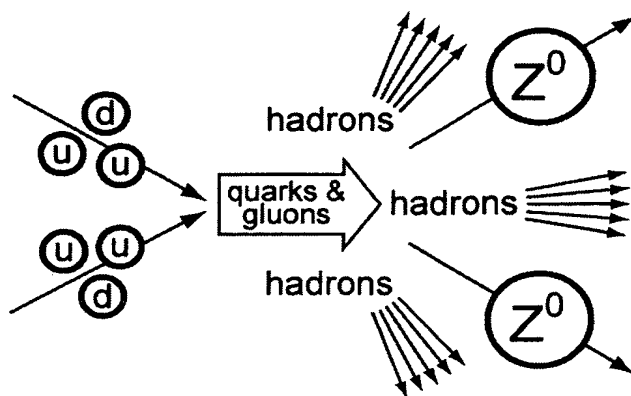


An electron and positron (antielectron) colliding at high energy, can annihilate to produce B^0 and \bar{B}^0 mesons via a virtual Z boson or a virtual photon.

FIG. 1A

$p p \rightarrow Z^0 Z^0 + \text{assorted hadrons}$



Two protons colliding at high energy can produce various hadrons plus very high mass particles such as Z bosons. Events such as this one are rare but can yield vital clues to the structure of matter.

FIG. 1B

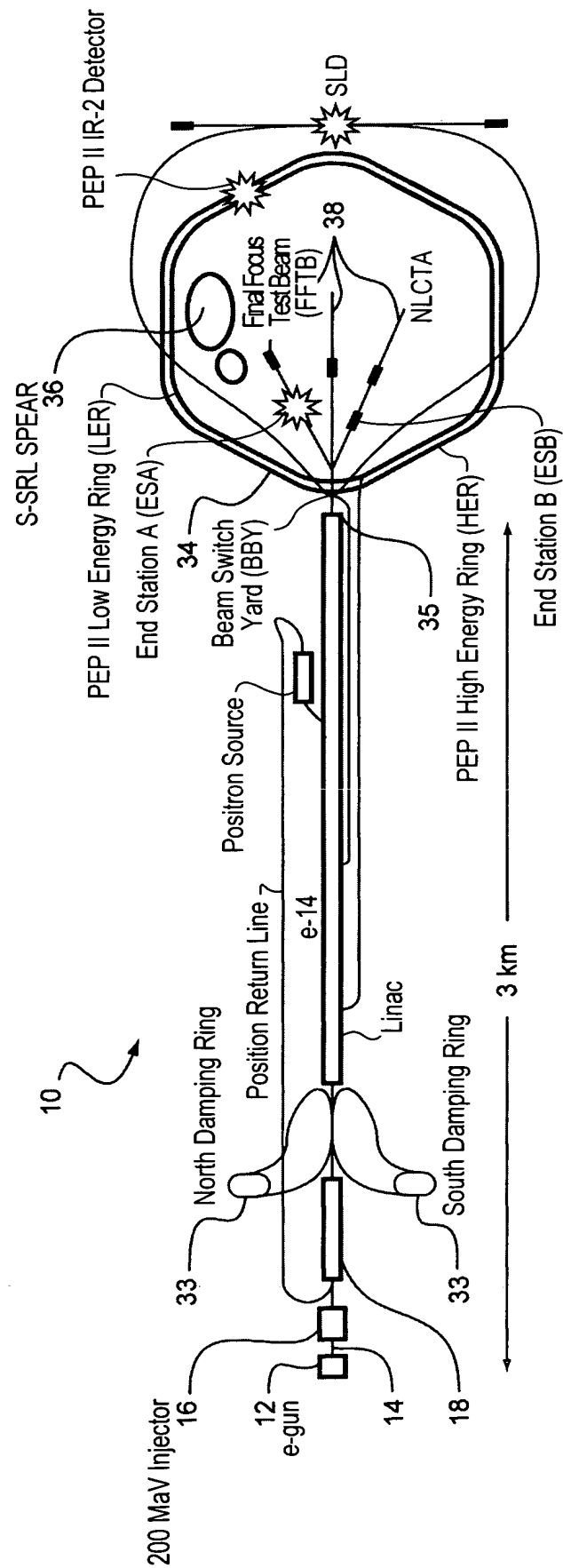


FIG. 2

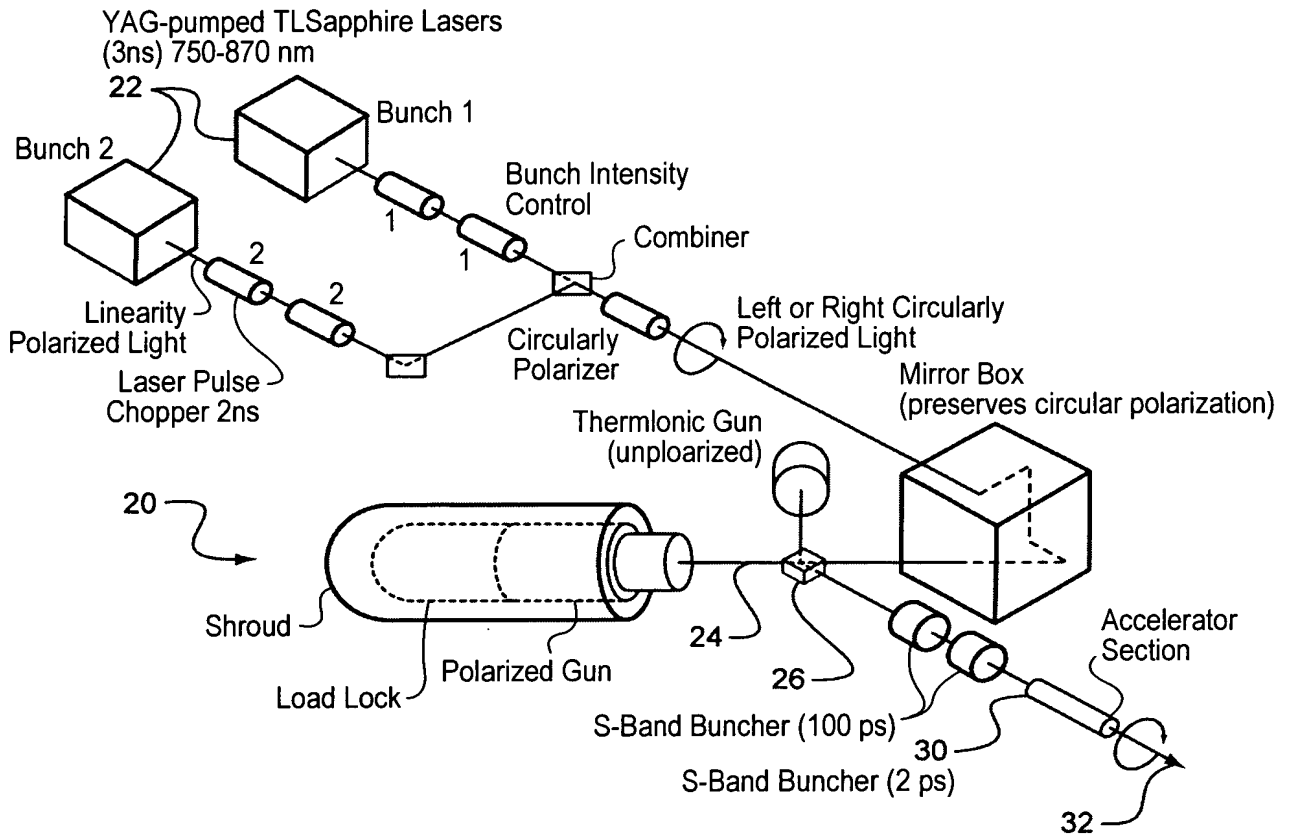


FIG. 3

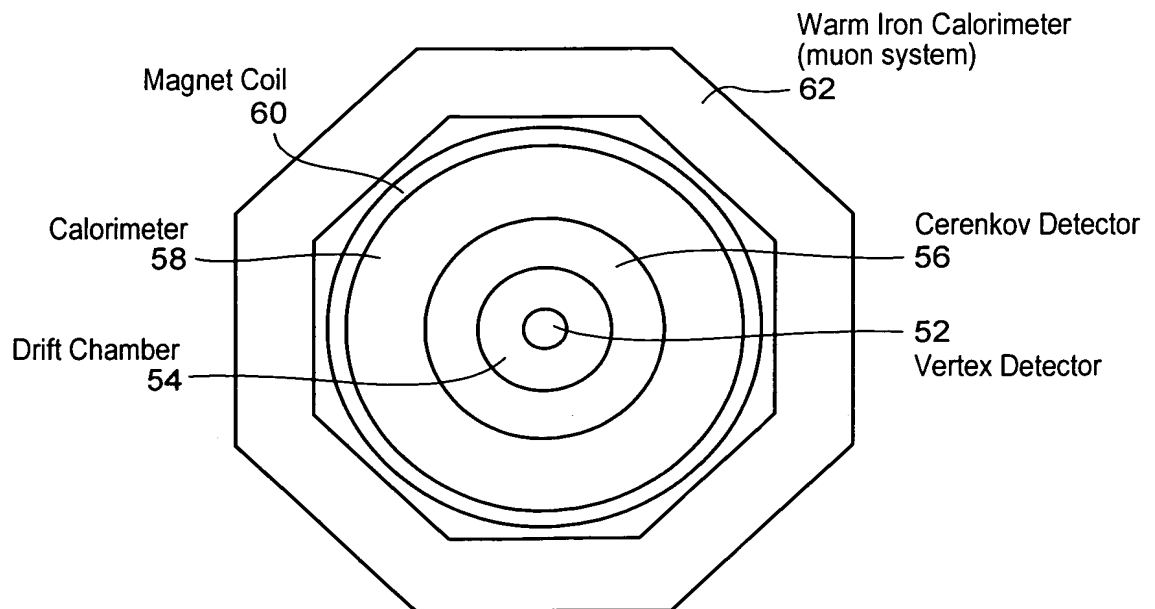


FIG. 4

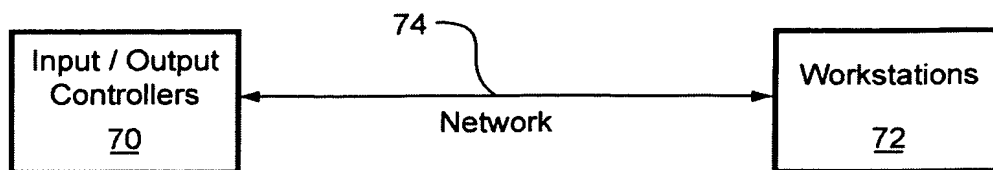


FIG. 5

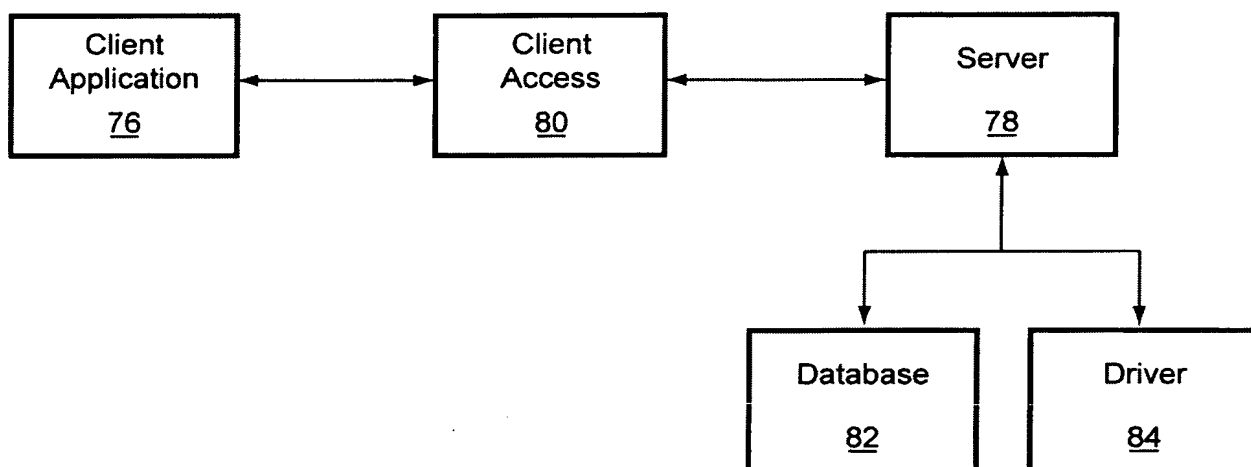


FIG. 6

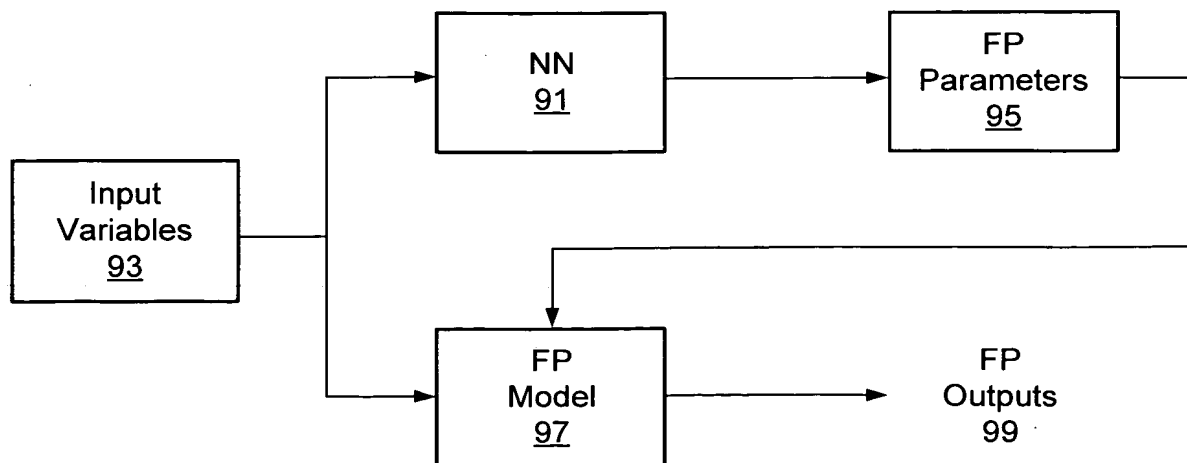


FIG. 7

Replacement Sheet

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100

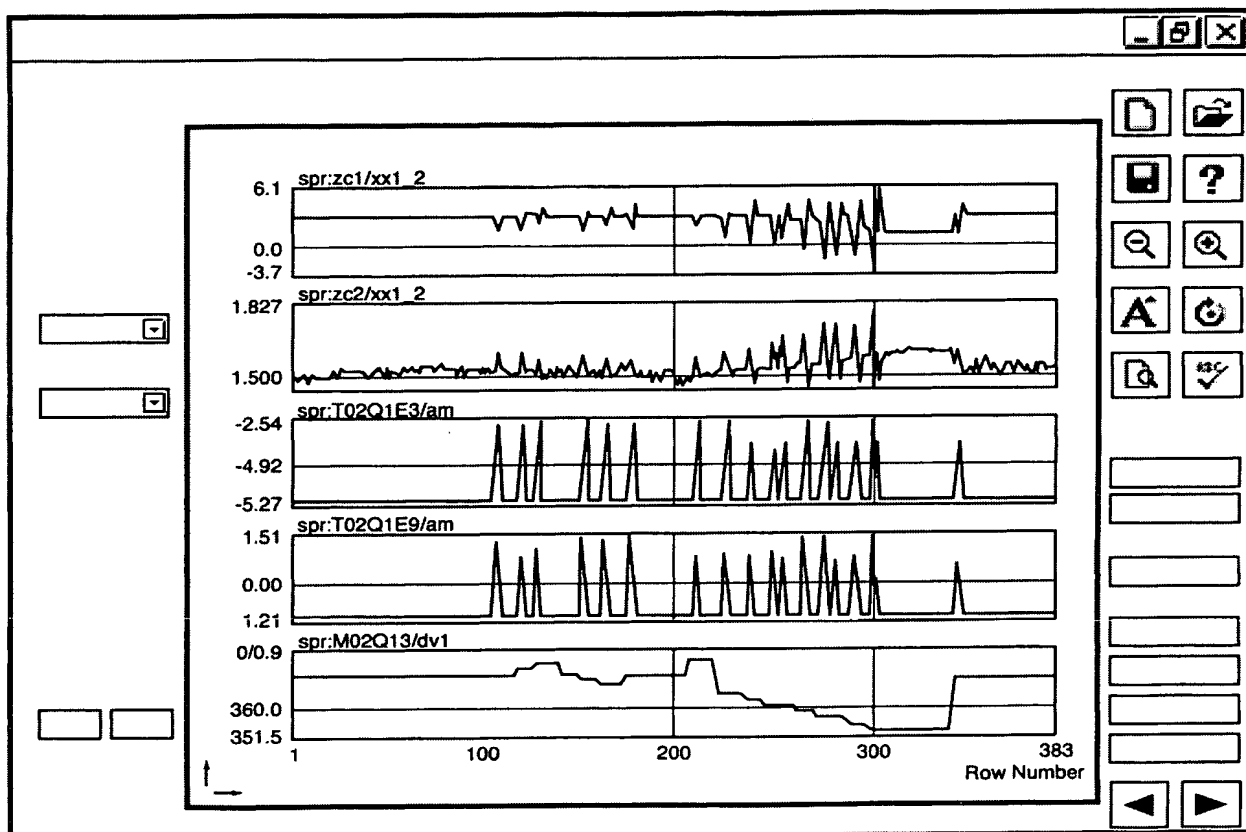


FIG. 8

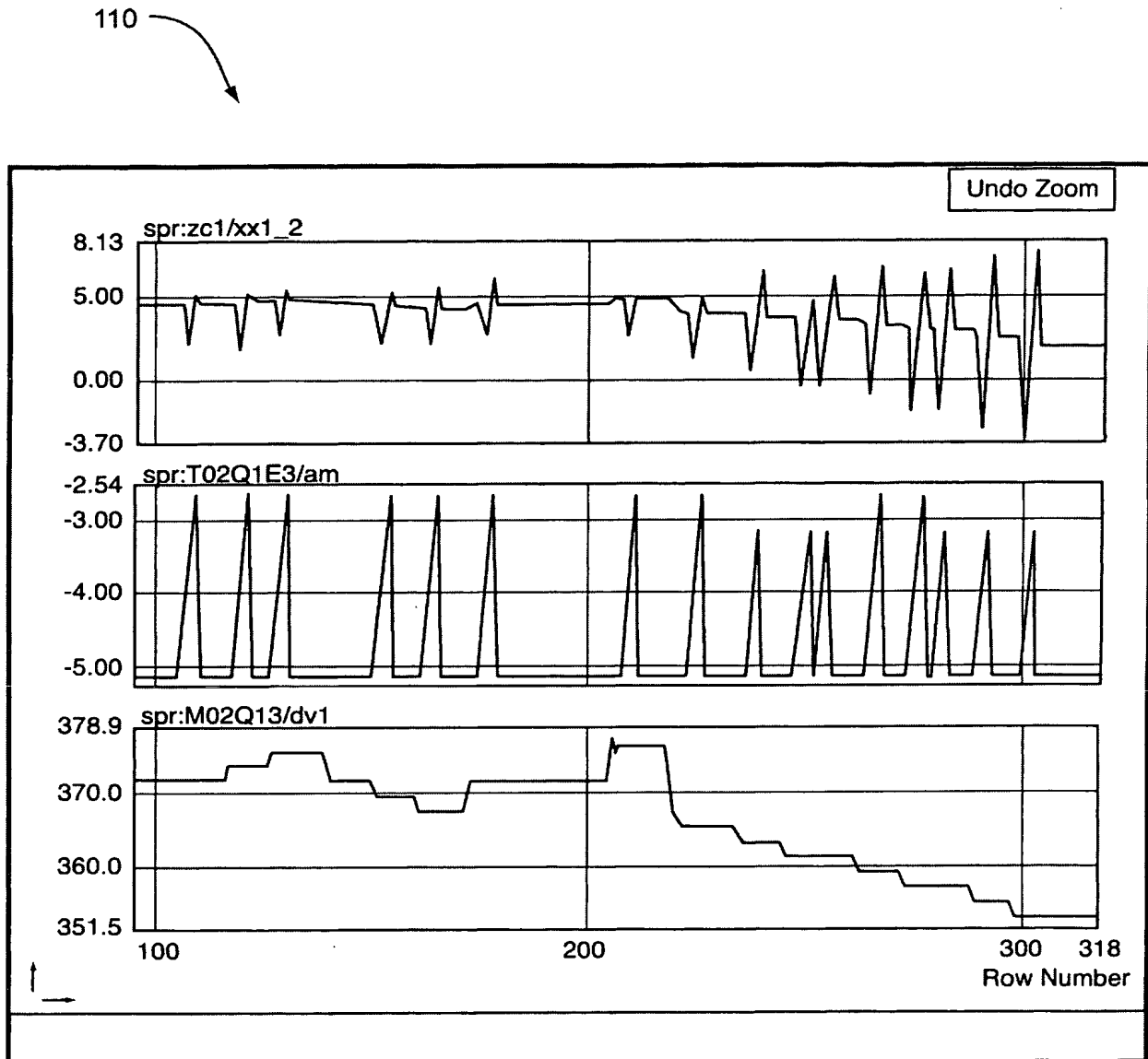


FIG. 9

Replacement Sheet

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120

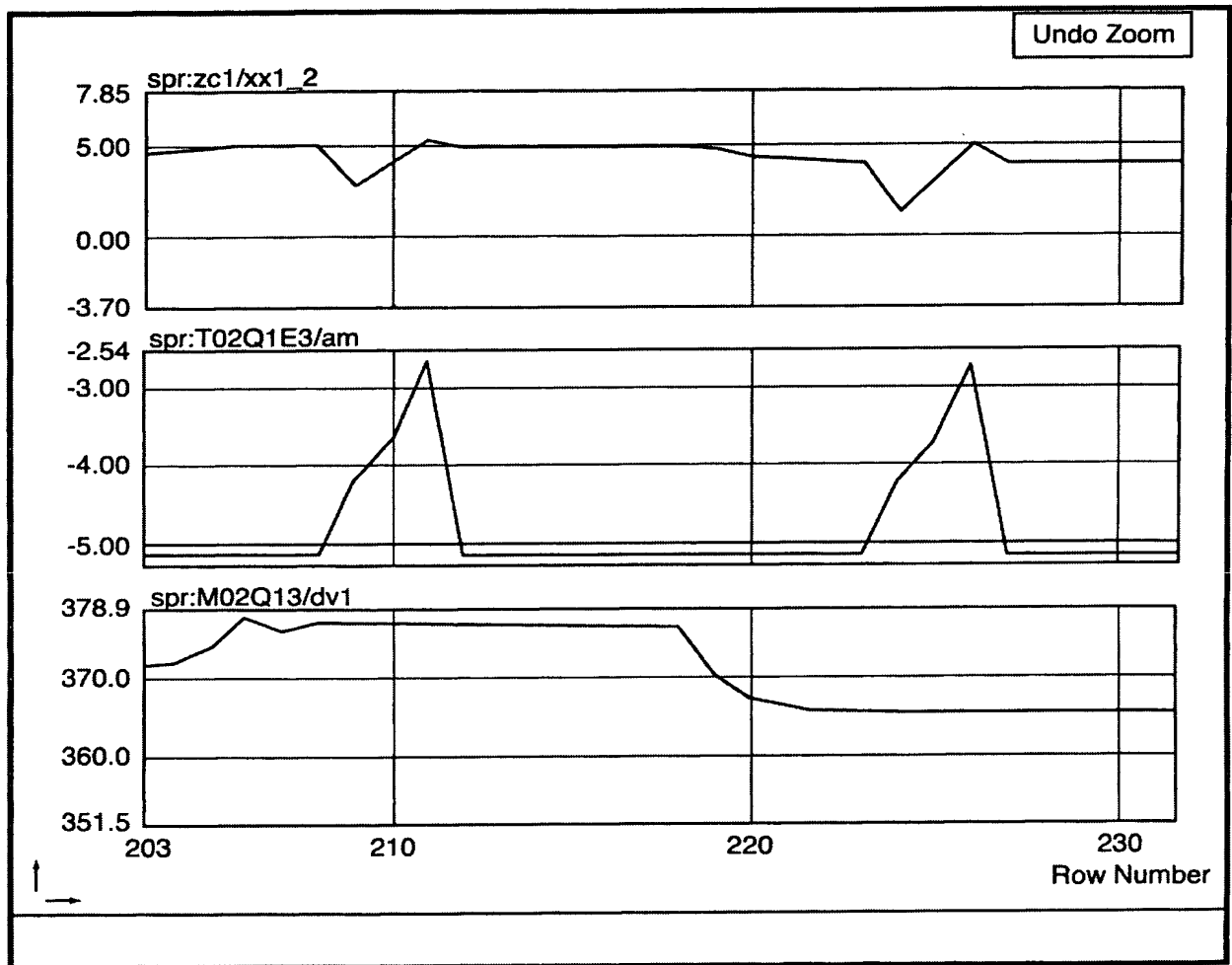


FIG. 10

Replacement Sheet

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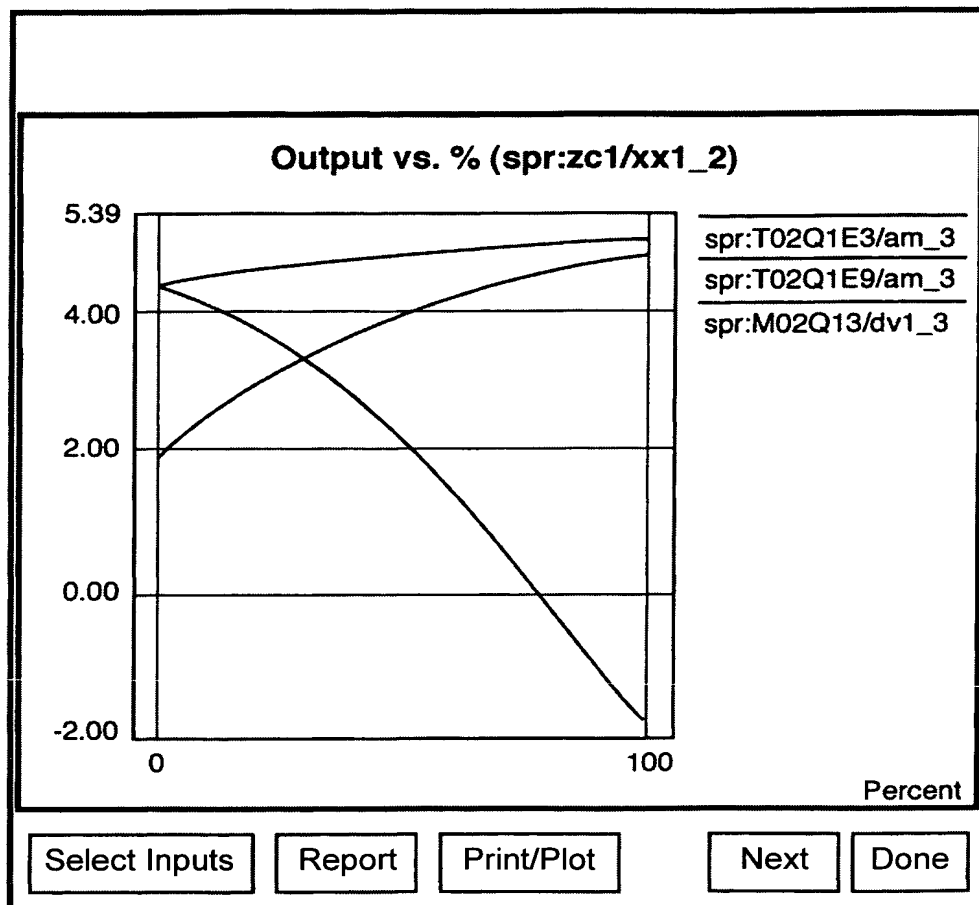


FIG. 11

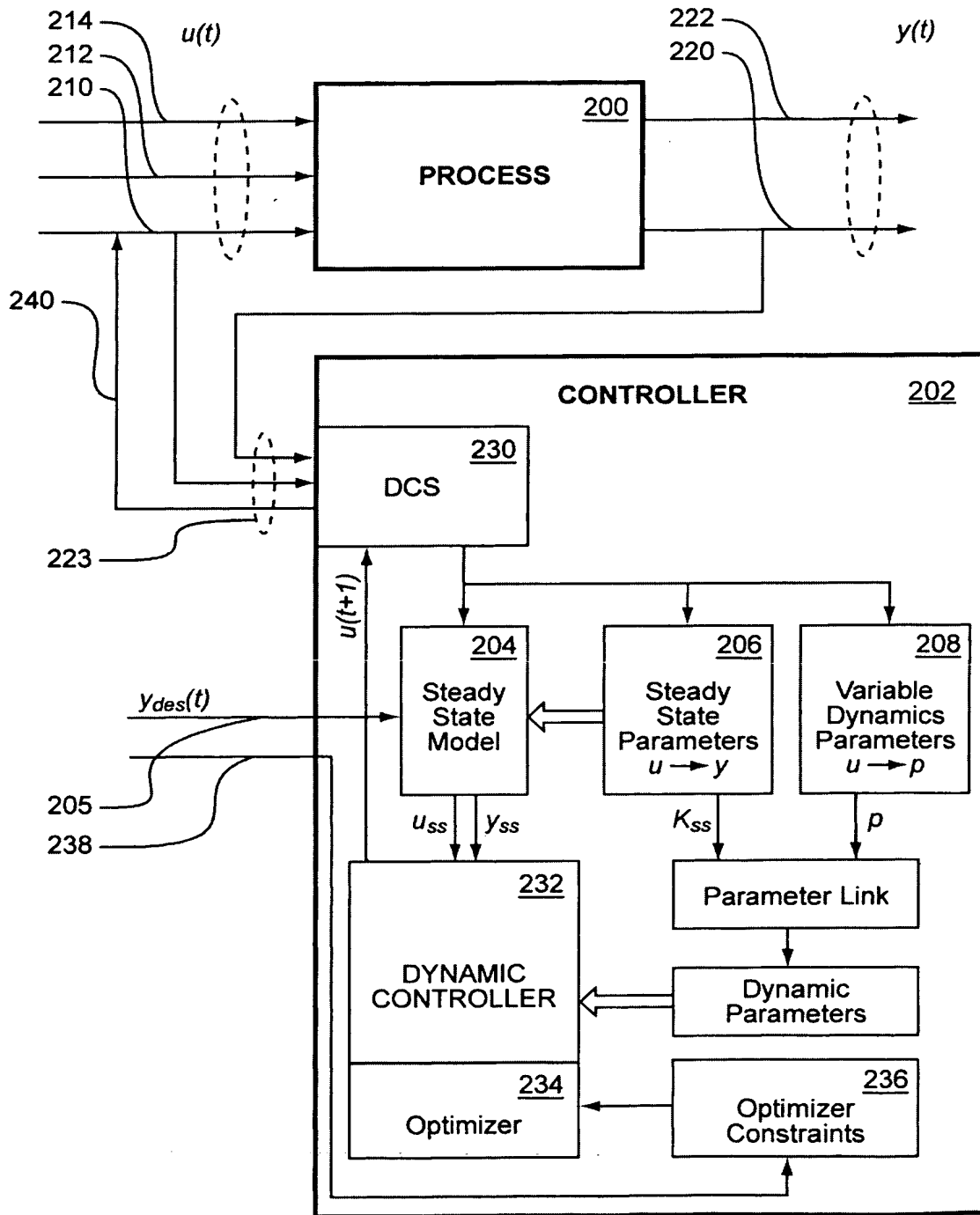


FIG. 12